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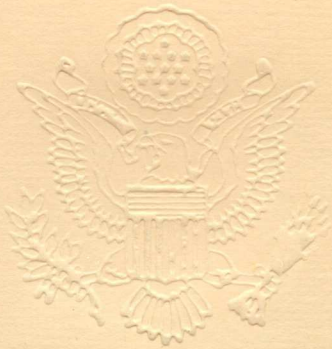
Annual Report of the International Joint Commission United States-Canada 1974

International Joint Commission



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United States–Canada

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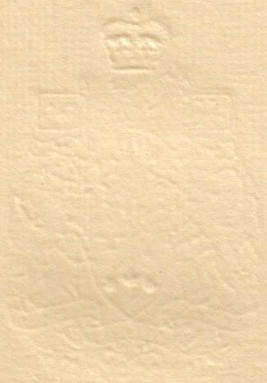

INTERNATIONAL
JOINT COMMISSION

The Annual Report of the International Joint Commission United States–Canada

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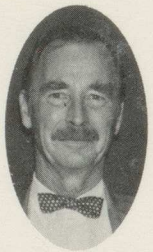
International Joint Commission

Washington May 1975 Ottawa



Christian A. Herter, Jr.,
Chairman, United States Section
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Chairman, Canadian Section
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Victor L. Smith, Commissioner
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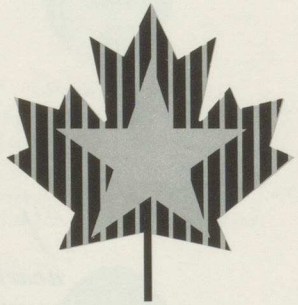
Keith A. Henry, Commissioner
Pres., CBA Engineering Ltd., Vancouver, B.C.

Contents

Foreword

This is the First Annual Report of the International Joint Commission. Although the IJC has been in existence for nearly 65 years and has considered many water and other environmental problems common to the interests of both the United States and Canada and issued more than a hundred reports, never before has it endeavored to give to the Governments and an interested public a general overview of its activities on an annual basis.

The preparation of this report is also a reflection of the Commission's broadening role in United States-Canadian relations which seems to have been taking place since the early 1960's. During this time the Commission has become aware of the necessity of better informing the public of its activites, and this report is in partial fulfillment of a policy decision to improve its communications with all levels of government and with the public at large.



Chapter 1

HISTORICAL DEVELOPMENT

The United States-Canadian border extends 4,000 miles from the Atlantic to the Pacific, over half of which passes along rivers and lakes whose waters are shared equally by the two countries. There are another 1500 miles of border defining the Alaskan peninsula. By the turn of the Century it became apparent to Government leaders that some permanent provisions should be made for dealing with a number of complex problems that had developed. In 1909 the Boundary Waters Treaty was signed and eighteen months later ratified.

The IJC, established by the Boundary Waters Treaty, consists of six Commissioners; three from Canada, three from the United States. The Commissioners act, not as separate national delegations under instruction from their respective Governments, but as a single body seeking common solutions in the joint interest and, most important, in accordance with the agreed rules or principles set out in the Treaty. Over the sixty-four years of its existence, there has been little tendency for the Commission to divide on national lines. In almost every case which has come before the Commissioners, they have reached unanimous agreement.

The IJC has headquarters offices in Washington, D. C. and Ottawa, Ontario, each staffed with a small group of advisers and a joint Secretary as provided in the Treaty. A permanent regional office was established in Windsor, Ontario in 1973 specifically to assist the Commission in its responsibilities under the terms of the 1972 Great Lakes Water Quality Agreement. It is staffed jointly by Canadians and Americans and its costs of operation are shared equally by the two Governments.

In addition to its own staff, the Commission is given the right to obtain or impress assistance from federal agencies to assist in its work. For many activities, international boards are set up whose job it is to carry out the directives of the Commission. The Great Lakes Water Quality Board, for example, is composed of 18 senior officials from various U.S. and Canadian federal, state and provincial agencies, and is the Commission's principal adviser on matters relating to the Great Lakes Water Quality Agreement.

During the last two years, 1973 and 1974, the Commission sat in formal session for 106 days and 97 days respectively, exclusive of travel. In addition, numerous other meetings held during the year required the attendance of one or more Commissioners from each section, and staff.

The Commission's responsibilities under the 1909 Treaty fall into three general categories:

The first involves the exercise of quasi-judicial powers in approving or withholding approval of applications for the use, obstruction or diversion of boundary waters on either side of the line that would affect the natural level or flow on the other side. This responsibility extends also to approval of works in water flowing from boundary waters and in waters that have crossed the boundary, when such works would affect the natural water level on the other side of the boundary. In granting such approval, the Commission may, and in certain cases must, impose conditions to ensure that suitable and adequate provision is made for the protection and indemnity of all interests on the other side of the line which may be injured by the approved use, obstruction or diversion.

The second general category of IJC responsibilities under the Treaty is that of making investigations and studies of specific problems, when requested by either or both Governments. This is known as a Reference. Under Article IX of the Treaty, either Government may refer to the Commission any question or matter

of difference arising between them involving the rights, obligations or interests of either in relation to the other or to the inhabitants of the other, along the common frontier. In practice, the two Governments usually consult on the terms and then transmit a joint Reference to the Commission. The responsibility of the IJC in such cases is to investigate, to report the facts and circumstances to the two Governments and to make recommendations. Implementation of the recommendations in each case depends on the decisions of the two Governments, usually after consultation. References to the IJC have covered such diverse matters as utilization of the water resources of a river basin, design of remedial works to preserve the beauty of Niagara Falls, water and air pollution along the boundary, ecological and environmental effects of flooding the Skagit River valley, problems of residents of Point Roberts, Washington, resulting from its isolation from the rest of the United States, and the regulation of Great Lakes levels.

The third category of responsibility is that of surveillance and coordination. The IJC is required to monitor compliance with the terms and conditions set forth in Orders of Approval it has issued, and notify the Governments when discrepancies are found. In addition, when requested by the two Governments, the IJC may monitor and coordinate actions or programs that result from governmental acceptance of recommendations made by the Commission in reports under Article IX of the Treaty.

There is a fourth category of responsibility of the IJC under the Treaty which might be considered as held in reserve, since the Governments have not seen fit to avail themselves of the facility it offers. Under Article X of the Treaty, the Governments may refer questions or matters of difference to the Commission for decision rather than just for report and recommendations. The questions or matters that may be referred are similar to those described in Article IX, except that they need not be "along the common frontier." Article X contains an additional requirement, however—such a reference requires the consent of both Governments, and this involves the prior advice and consent of the U.S. Senate and the consent in Canada of the Governor General in Council.

Lastly, in implementing the recommendations contained in IJC reports on various Article IX Refer-

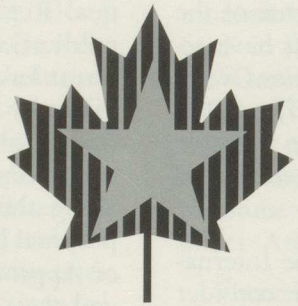
ences, the two Governments in some cases have given specific responsibilities and authority to the Commission in addition to those it possesses by virtue of the Boundary Waters Treaty. The Governments have accomplished this from time to time in various ways and with varying degrees of formality. The 1972 Great Lakes Water Quality Agreement is an example of the Governments formally conferring additional responsibilities on the Commission.

The nature of the continuing work of the International Joint Commission required that it consider a broad range of United States-Canadian boundary problems of varying degrees of importance during the course of any one year. The year 1974 was typical in this respect. It has been said that no problem is too large or too small to command the attention of the Commission.

The water levels and pollution problems of the Great Lakes affect the well-being of millions who reside along their shores in both Countries, as well as those who work in industries whose very existence depends on their ability to utilize the resources of the lakes. In contrast, the placement of an ice boom in Lake Erie at its outlet into the Niagara River is a small operation; albeit its benefits and advantages are indirectly enjoyed by vast number of residents of the Niagara Frontier.

Highlighting the Commission's activities in 1974 was the publication of the Commission's Second Annual Report on Great Lakes Water Quality; receipt, publication and conduct of public hearings on the Great Lakes Levels Board's exhaustive study to determine the feasibility of further regulating lake levels; the completion of field studies on a controversial Canadian proposal to control water levels and flooding along the Richelieu River and Lake Champlain; a proposal by British Columbia to reopen a 1942 Order of Approval to construct a dam on the Skagit River; and the conduct of a seminar to begin consideration of ways to increase the effectiveness of the Commission's operations.

A more detailed account of the Commission's activities during 1974 follows.



Chapter 2

WATER LEVELS AND FLOWS ALONG THE BOUNDARY

The Great Lakes

Because of their very large size, the Great Lakes are normally able to store the water which reaches them with only relatively small changes in their water levels. However, the capacities of the rivers connecting or draining them are small, compared to the water volume stored in the lakes. Because of the limited capacities of the draining rivers, when precipitation persists for a period above or below the normal level, water levels of the lakes vary significantly.

The high water levels which occurred on the lakes in 1951-52 and those which have occurred during the past three years, are the result of persistently high precipitation. The very low levels of 1964-65 occurred because of persistently low precipitation.

When conditions which cause the extreme high or low levels have changed, it takes some time for the lakes to return to a more normal state. Their great size and limited outlet capacities do not permit them to respond quickly as would a much smaller lake with a relatively large outlet.

Existing Regulatory Works

Man, through various works, has affected to some degree the Great Lakes water levels. In several instances, because of the significant effects of proposed works on levels and flows, the International Joint Commission was responsible for approving the construction and operation of the works.

In 1914 the Commission approved the construction of the control works for power generation in the St. Marys River at the outlet of Lake Superior. In approving this decision the Commission stipulated that the level of Lake Superior should be maintained at a prescribed level, and that the control works should be operated exclusively for the benefit of Lake Superior interests.

Lake Ontario water levels have been regulated by power facilities which were constructed in the St. Lawrence River in the 1950's under IJC Orders of Approval. The lake is regulated within a range of stage from elevation 244.0 feet to elevation 248.0 feet ". . . as nearly as may be," in accordance with eleven specific criteria approved by the two Governments.

Water Level Study

In the mid-1960's, when water levels in the Great Lakes were extremely low, public and private interests in both countries were suffering serious adverse effects. The Commission was directed to undertake a study to ". . . determine whether measures within the Great Lakes Basin can be taken in the public interest to regulate further the levels of the Great Lakes so as to reduce the extremes of stage which have been experienced."

The Great Lakes Levels Board, made up primarily of senior engineers from Government agencies of both Countries was established by the Commission to make the detailed engineering studies. A little over nine years later the Board submitted its report with seven supporting appendices to the Commission.

In essence the final Board Report found that (1) regulation of the water levels of Lake Michigan and Huron was not economically feasible; (2) that some regulation of Lake Erie might be economically feasible; and (3) that small net benefits could be achieved at a nominal cost by a change in the present regulation of Lake Superior.

The levels of all the Great Lakes rose in 1972 and high levels have persisted throughout 1973 and 1974. In January 1973 the Commission received an emergency application from the United States Government requesting permission to reduce the flows from Lake Superior to alleviate conditions on the lower lakes. In response to this request and expressions of concern by the Canadian Government, the Commission ordered its Lake Superior Board to deviate from an approved regulation plan to reduce the discharge from the lake.

In April 1973 the Commission received from its Great Lakes Levels Board an Interim Report suggesting consideration of a new concept for controlling water levels in Lake Superior—to give all possible relief to Lakes Michigan and Huron shore property interests without causing unacceptable conditions in Lake Superior. After public hearings throughout the Great Lakes Basin the Commission submitted (June 1973) a Special Interim Report to Governments recommending the new objective. However, the Commission made it clear that ". . . as soon as the emergency situation eases downstream or if Lake Superior conditions require, the Commission will find it necessary to revert to the [normal operating rule] unless further instructions have been received from the Governments."

The Board's final report on the overall lake levels study was released to the public in February 1974 and by the year's end the Commission had held 13 public hearings in the Great Lakes Basin—at Detroit, Green Bay, Duluth, Milwaukee, Chicago, Muskegon, Cleveland, and Rochester in the United States; Thunder Bay, Owen Sound, Sault Ste. Marie, Hamilton, and Montreal in Canada. About 1,300 persons attended the hearings, with over 200 witnesses giving testimony before the Commission on their views of the Board's report, as individuals or as representatives of an interested organization or government agency. The Commission expects to formulate its report on further regulation of Great Lakes water levels and forward its findings and recommendations to the two Governments during the calendar year 1975.

Champlain-Richelieu Project

In 1937 the IJC approved the construction and operation by Canada of regulatory works in the Richelieu River to control flooding of adjacent lands in the Province of Quebec. The project also regulates the levels of Lake Champlain in the United States.

A control dam just below St. Jean, Quebec, in the Richelieu River and known as Fryers' Island Dam was completed in 1939, but other works which would expand the Richelieu River channel were never completed. As a result, the purpose of the project was never achieved.

In recent years high water supplies have caused considerable damage to riparian interests in the Richelieu River Valley and Lake Champlain Basin. In March 1973 the United States and Canadian Governments asked the IJC to "investigate and report on the feasibility and desirability of regulation of the Richelieu River . . . for the purpose of alleviating extreme water conditions in the Richelieu River and in Lake Champlain . . ."

The Commission immediately established the International Champlain-Richelieu Engineering Board composed of both United States and Canadian engineers and environmental specialists to undertake the necessary field studies and report to the Commission within one year. The Board submitted its report to the Commission in September 1974, pointing out that the study time had been too short to undertake

more complete investigation of possible environmental consequences of regulating Lake Champlain water levels.

The Board concluded that regulation of Lake Champlain for flood control purposes could be accomplished so as to reduce extreme water levels and the attendant damages. However, the Board differed on what the environmental effects of regulation would be on the United States side of the boundary. Some members believed environmental damages would be minimal, while others said damages could be significant. In any event, the report said that environmental acceptability of the project could not be determined without further study.

The Commission released the Board's Report following its October 1974 semi-annual meeting in Ottawa and held public hearings in early December in Burlington, Vermont; Plattsburgh, New York; and St. Jean, Quebec. (*Note*: On March 12, 1975, the Commission forwarded to the two Governments an interim report recommending that an intensive study be undertaken to determine the effects of regulation on the environment in both Countries. It also recommended that there be an accurate determination of net benefits; that the Project contemplated in the Commission's earlier Order of Approval not be completed nor operated; and that if Canada wished to proceed with a dam concurrently with the environmental studies it should file an application with the Commission, which the Commission would then consider with dispatch.)

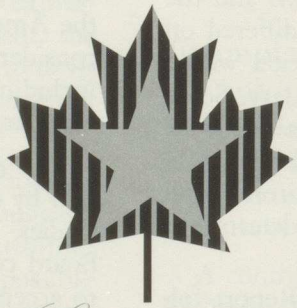
The American Falls at Niagara

Another major study—The Preservation and Enhancement of the American Falls at Niagara—was completed for the IJC in June 1974. Originally the U.S. Army Corps of Engineers was authorized by Congress in 1965 to undertake the study, but by 1967 it was expanded into an international study when the United States and Canadian Governments requested the IJC to investigate and report on measures necessary to preserve or enhance the beauty of the American Falls. The purpose of the study was to consider the scenic spectacle of the American Falls including the continuing process of changes in the form and appearance of the Falls.

The American Falls International Board was created by the Commission and undertook the necessary studies. In its final report to the Commission, the Board concluded that "the guiding policy should be to accept the process of change . . . and erosion and recession [of the Falls] should not be interrupted." The Board told the Commission, however, that it would be feasible, if desired, to remove all or any part of the talus (crumbled rock) which has accumulated at the base of the Falls, and to retard or prevent further erosion.

The Commission released the full Report of the Board for public review and held public hearings.

Aside from the Board's conclusions and recommendations on the American Falls itself, it also recommended that a broad international environmental study should be carried out which would include the American Falls "as a part of the larger scene which includes the flanks of the Falls, the adjacent parks, and the back-drop of city buildings and commercial enterprises."



Chapter 3

WATER POLLUTION ACROSS THE BOUNDARY

Great Lakes Water Quality

The Commission's first involvement with boundary water pollution problems began in its first year of operation, 1912. Later, a major study, concluded in 1918, warned the two Countries that problems were developing in the Great Lakes and would become acute if remedial programs for handling municipal and industrial wastes were not undertaken.

With the accelerated industrial and municipal development in the Great Lakes Basin in the 1930's and during the World War II period, Lake Erie and Lake Ontario were hard hit by excessive and uncontrolled waste discharges. In 1946 the Commission was requested to investigate the water quality problems in the various connecting channels of the Great Lakes because of serious industrial pollution, particularly in the Detroit and Niagara Rivers. In 1950 the Commission clearly outlined the problems, recommended remedial action, and established international water quality objectives. The objectives were the forerunner of water quality standards later established by the two Governments as a major control measure.

Then in 1964 the two Governments requested the Commission to investigate the seriously polluted condition of the lower Great Lakes—Erie and Ontario—and to make recommendations. By 1970 the Commission filed its report, listing a wide range of remedial programs and actions that would be required to avert a major catastrophe in the Great Lakes.

The Governments responded and began a series of bi-lateral discussions that were concluded on April 15, 1972, with the signing of the Great Lakes Water Quality Agreement by President Nixon and Prime Minister Trudeau.

The Agreement sets out certain water quality objectives for the Great Lakes and outlines a wide range of remedial programs to be undertaken by the Governments to achieve them.

The Commission has been given a responsibility to coordinate programs set out in the Agreement, to evaluate their effectiveness and to assess progress in pollution abatement. The Agreement also directs the Commission to report to Governments at least annually on its evaluation of the progress and effectiveness of the Agreement.

The Commission's first report was released in July 1973 and covered Agreement activities for calendar year 1972. It reported on the formation of a Great Lakes Water Quality Board, a Research Advisory Board, a dredging committee, and a regional office as authorized in the Agreement. The two Boards serve as principal advisors to the Commission on matters pertaining to the Agreement and are a continuing body composed equally of United States and Canadian water pollution experts. The dredging committee created by the Agreement was established to review current dredging practices and to recommend by 1975 programs to minimize pollution of the lakes from this activity.

In this first report, the Commission said it was too early to assess progress and evaluate programs being implemented, but expressed optimism that the two Countries were making satisfactory progress in implementing the Agreement. In addition, the report said the continuing increased rate of degradation of Lake Erie and Lake Ontario appeared to be slowing down.

The Commission's second annual report, released in 1974 on its 1973 activities, concluded that the increasing rate of degradation in Lake Erie appeared to be halted, although it had no comprehensive scientific data to support its views. A serious deficiency, the Commission asserted, was the lack of funds and personnel to carry out a water quality assessment program.Considerable data are being collected but an adequate capability to evaluate and interpret on a uniform technical basis does not exist for all the Governments or agencies involved. Until it does, the Commission asserted, it would not be able to report on progress with any scientific accuracy.

At the time of the signing of the Water Quality Agreement, the Governments referred to the Commission two major problems related to Great Lakes water quality. First, the Commission was requested to undertake a water quality study of Lake Superior and Lake Huron, much the same as they had requested on Lake Erie and Lake Ontario almost 10 years before. Secondly, the Commission was requested to investigate the effects of various land use activities in the Great Lakes Basin on the water quality of the lakes.

Special teams of United States and Canadian scientists were organized in 1973 to undertake the studies and by 1974 the investigations were well underway. Over 200 federal, state and provincial government technicians and scientists are involved in carrying out the field studies. The Lake Superior and Lake Huron studies are expected to be completed by the end of 1975 while the Land Use Activities studies—a great deal more complex—is expected to be completed in 1977 or 78.

To assist the Commission and its Boards in the large task of coordinating programs initiated in both Countries under the terms of the Agreement and to make an annual assessment of the progress, a regional office was established in Windsor, Ontario. The regional office, with an authorized staff of 36, serves primarily as a Secretariat and as technical support of the Great Lakes Water Quality Board and the Research Advisory Board. In addition, it serves as a focal point for the collection and storage of water quality data and related information, and its facilities are in daily use by the numerous groups, committees and subcommittees organized to carry out the programs specified in the Agreement. The United States and Canada share equally in the total cost of its operations, as well as in the composition of the professional staff.

St. Croix River

The St. Croix River forms a portion of the boundary between the Province of New Brunswick and the State of Maine. Since before the turn of the Century, lumbering, milling and the manufacture of pulp wood have been the principal industries supporting a relatively small population. These industries were almost completely unregulated with respect to waste discharges until recent years.

In 1955 the Commission was requested to study the St. Croix River for better use, conservation and regulation of waters. In October 1959 the Commission reported to Governments with its recommendations on pollution abatement and other matters, including international water quality objectives. By 1966 the Commission had set up the Advisory Board on Pollution Control, St. Croix River, which has carried out a surveillance and monitoring function for the Commission since that time; reporting semi-annually on water quality conditions and pollution control activities of industry and municipalities.

Progress in pollution abatement on the river has been slow in spite of the presence of the IJC. In 1968, the Commission conducted a public meeting in the St. Croix basin to discuss with industrial and municipal leaders and the public the quality problems in the river and the efforts being taken to correct them.

With satisfactory progress still not achieved, the Commission in 1971, after receiving a special report from the Advisory Board, requested the U.S. Environmental Protection Agency to take such steps within its authority, as are "appropriate and necessary to obtain compliance at the earliest possible date with existing water quality objectives and standards in the St. Croix River."

EPA responded in November 1971 by filing a complaint with the U.S. District Attorney in Maine against the Georgia-Pacific Company and sought a permanent injunction against the company's "continued discharge of refuse matter into navigable waters of the United States."

In January 1972 the Justice Department filed suit against Georgia-Pacific. Since then, the company has responded by submitting plans and beginning construction of waste treatment facilities which will comply with the terms of a waste discharge permit which has been issued by the State under the provisions of the National Pollution Discharge Elimination System (NPDES).

The most recent report (September 1974) of the Advisory Board reported that construction on the Georgia-Pacific waste treatment facility was underway in July. When completed, it is anticipated that a major step will have been taken to return the stream to a water quality level capable of assuring salmon spawning.

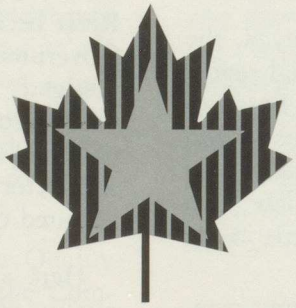
Rainy River and Lake of the Woods

The Commission has been involved in matters pertaining to the Rainy River, its levels and flows, since an initial meeting in 1912. It was not until 1959, however, that the pollution of the Rainy River became a matter of special concern to the two Governments and the Commission was asked to investigate. The Commission presented its final report with recommendations in February 1965, finding that the waters of the Lake of the Woods were in satisfactory condition but that the Rainy River was polluted on both sides of the boundary.

Here again the Commission recommended water quality objectives for the river as minimum criteria for the establishment of water quality standards and abatement programs by the State of Minnesota and the Province of Ontario. Since 1965 provision of and improvements in municipal sewage treatment have been developing in the basin.

Current principal polluters to the Rainy are pulp mills of Boise Cascade Corporation located across the river from each other at International Falls, Minnesota and Fort Frances, Ontario.

The U.S. plant continues to be a principal violator of stream standards, and the Canadian plant has not yet achieved a satisfactory abatement program. The State of Minnesota is proceeding under the terms of an NPDES permit to require a vigorous waste treatment program at the International Falls plant. In November 1974 the Commission requested its Rainy River Water Pollution Board to report on the apparent continuing difficulties of the Canadian plant.



Chapter 4

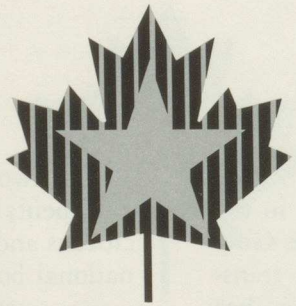
AIR POLLUTION ACROSS THE BOUNDARY

Air pollution is not specifically referred to in the Boundary Waters Treaty. Nevertheless, in the past the Commission has been requested by the Governments to concern itself with three specific transboundary air pollution problems. Recently, it has been given continuing responsibility to carry out a general border surveillance and to advise the Governments of air pollution problems, actual or potential.

The matter of air pollution in the Detroit-Windsor area arose first in 1928, but again more urgently in 1968 when the Commission was requested to determine whether air quality there, and in the Port Huron-Sarnia area, was degraded to an extent that it was detrimental to public health, safety or general welfare of citizens on the other side of the boundary.

In July 1972, the Commission reported to Governments that transboundary and local air pollution in the two study areas exceeded "the level that is detrimental to health, safety, and general welfare of citizens and to property on the other side of the international boundary."

During 1974 the Commission responded in October to numerous complaints from Canadian citizens of Ft. Frances, Ontario on unacceptable air quality conditions in the area caused by the Boise-Cascade kraft pulp mill at International Falls. The Commission requested the Governor of Minnesota to intercede into the situation and require an immediate correction to the problem or cause the plant to close. The Governor responded by dispatching State air pollution specialists into the area who worked with company officials to provide promptly an interim solution to the problem.



Chapter 5

OTHER MATTERS

The Commission had before it during 1974 numerous other problems of international importance, particularly to those citizens of both countries most directly affected. Among these matters are the following.

Ross Dam and the Skagit Valley

In 1942 the Commission approved an application by the City of Seattle to construct a power dam on the Skagit River which flows across the international boundary from British Columbia into the State of Washington. The dam was to be constructed in stages to raise the levels of the resultant lake to a maximum level of 1725 feet. A condition of the Commission's Order of Approval was the payment of adequate compensation to the Province for any damage caused in British Columbia, and that the water levels could not be raised until there was a binding agreement to assure compensation. Such an agreement was concluded in 1967. In 1970 the City of Seattle filed with the U.S. Federal Power Commission an application to amend a 1927 license to raise Ross Dam the last 125 feet. The effect of raising the final stage of the dam would be to enlarge the reservoir to the extent that it would inundate Canadian land in the Skagit Valley some eight miles beyond the boundary. As a result, the two Governments in April 1971 asked the Commission to assess the environmental consequences in Canada of raising Ross Dam to elevation 1725 feet.

In its 1972 report to Governments, the Commission found that the present characteristics of the environment would be changed, but the new environment would retain many of the former characteristics. Those who appreciate and use the Valley in its present state would inevitably suffer somewhat, although other people would find the new environment at least as pleasant. The Commission pointed out, however, that the concept of "social preservation" was significant and should be taken into account in the decision-making process.

The Federal Power Commission had not acted on the Seattle application by the end of 1974, however the Commission received a formal request from the Province of British Columbia to reconsider the approval of the City of Seattle's original application.

The Commission has not yet responded formally to the Provincial request but has urged the parties to negotiate if possible, a mutually acceptable solution.

Ice Booms

For the past ten years the power entities (Power Authority of the State of New York and Ontario-Hydro) have been installing an ice boom in Lake Erie at the head of the Niagara River in the late Fall. This reduces heavy ice flows down the River during the Winter thus reducing the possibility of downstream flooding and interference with water diversion facilities required by the U.S. and Canadian power stations below Niagara Falls. Benefits of the ice boom installation to flood control and power production are significant, but some controversy has arisen during the last several years as to whether the booms hold the ice at the east end of Lake Erie for a longer period of time in the Spring, and if so, whether this contributes to adverse atmospheric conditions in the vicinity of Buffalo. Studies to date on this subject have failed to substantiate this charge. As the year ended, the Commission learned that the power entities were readying a request for an extension of the Orders of Approval to permit the installation of the ice boom for an indefinite period of years.

In another program, ice booms have been installed since the winter of 1959-60 in the St. Lawrence River by the Power Authority of the State of New York and Ontario-Hydro to form and maintain a stable ice cover in the River to reduce the probability of ice jams and allow a reasonably stable production of power. In 1974 the Commission, which issued Orders of Approval for the continuation and operation of the power plants, advised the Governments it now considers the ice booms to be an integral part of the control works and therefore subject to the Commission's Orders. The Governments have so agreed.

In a related area, the Commission is cognizant of the current U.S. Corps of Engineers' Winter Navigation Study which is looking into the feasibility of extending the winter navigation season in the Great Lakes system. The Commission directed its St. Lawrence River Board of Control to review a study proposal to install and operate an experimental ice boom in the St. Lawrence River at Copeland Cut. The Board advised the Commission that the experimental boom would not affect the levels and flows in the River.

Point Roberts

In 1971 the Commission was asked by the two Governments to undertake a study of the problems created by the presence and location of the International Boundary at Point Roberts, Washington, which causes the community to be isolated to some degree from the rest of the United States. In October 1973 the International Point Roberts Board submitted its report to the Commission. The Board concluded that a truly binational solution should be sought; one that would provide benefits to the people of both Countries. The Board recommended the establishment of an international conservation and recreation area that would include Point Roberts, certain adjacent Canadian lands, and also a portion of the Gulf and San Juan Islands. A binational forum would be created to administer the program.

Public hearings were held in December 1973 and the major public response to the Board proposal was strongly adverse to the plan.

As a result the Commission redirected its Board to prepare a supplemental report focusing on solutions to the specific problems set out in the original Reference and affecting the Point within its geographic limits. These were subsequently identified and discussed by the Board in its supplemental report submitted in October 1974. The report considered the application of federal immigration and custom laws, regulations of both Countries with respect to the transportation of goods including perishable foodstuffs, the free movement of tradesmen, employment of U.S. residents of Point Roberts in Canada and visa versa, visa restrictions on Canadian residents, Canadian pension rights, Provincial and State rules regarding health and medical services, electric power and telephone service, law enforcement, and local regulation or provision of water sewage treatment and waste disposal.

The Board concluded that resolution of the major problems would require ". . . concept[s] of sufficient breadth to justify a marshalling of resources on both sides of the boundary." However, the Board also concluded that until the various levels of government accept the necessity for binational cooperation, little progress can be made. The Commission hopes that the State and Province and local governments will come to some agreement in principle regarding the future of the Point.

The Commission has not yet developed its report to Governments on Point Roberts in answer to the

initial Reference, but will give further consideration to the complex problems of the Point during 1975.

Zosel Dam

In other actions during 1974, the Commission urged the Governor of Washington to repair Zosel Dam located on the Okanagan River near the International Boundary. It had partially failed with no loss of life or damage to property during a heavy rainstorm in August 1974. Zosel Dam was constructed in 1927 by private interests under a permit issued by the State of Washington and has been operated since 1946 under the Commission's Orders of Approval. While the Commission has been advised that private interests are no longer using the dam, the structure, stabilizing lake levels during the irrigation and recreation seasons, has become an integral part of a long established environment.

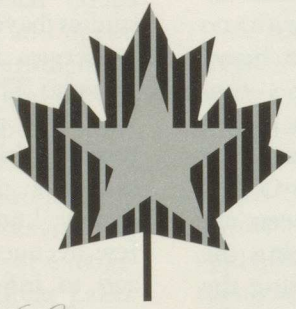
Prairie Portage Dam

The Commission also approved plans to rebuild Prairie Portage Dam located in the Boundary Waters Canoe Area of Superior National Forest in the State of Minnesota and Quetico Park in Ontario. The dam, first built in 1902, has been operated under the Commission's Orders of Approval since 1936. In 1941 the U.S. Forest Service replaced it with a cofferdam when the original structure deteriorated beyond repair. The cofferdam failed in 1968 and the Commission allowed it to be rebuilt provided a permanent structure was constructed. In October 1973 the IJC strongly urged the Forest Service to seek funding for a permanent structure. During 1974 funds were provided by Congress, plans and specifications for the permanent structure were completed, an environmental impact statement prepared, and agreement reached with Canada that construction can proceed early in 1975 as weather permits under IJC supervision.

Public Participation

Not only has the Commission given attention during 1974 to a broad range of important border problems referred to it by the two Governments, but studies have been initiated into ways for improving its service to the citizens of the United States and Canada. The Commission is aware of the criticism voiced by many private citizens and groups during recent public hearings. It is asserted that the Commission's operations and responsibilities are not widely known to the public and there appear to be few avenues other than hearings for the private citizen to influence Commission decision in a timely way. The problem of citizen input to the Commission is now under study and the Commission expects to improve its communications with the public during 1975. Also reflecting the Commission's decision to better inform the public of its activities is the public information program developed at its regional office at Windsor, Ontario. This includes the hiring of a full-time public information officer to carry out the program. The Canadian Section of the Commission expects to employ a full-time public information officer in 1975.

Improving the Commission's operation and exploring its general role for the future was the subject of a seminar in Montreal in July 1974 at which a number of high ranking public officials, former Commissioners, private citizens and academic experts met with the Commission and staff. The seminar was the first systematic examination of the Commission in almost 65 years of existence as to the adequacy of its legal authority, its procedures and performance. As a result, it expects to make recommendations to the two Governments to increase its effectiveness.



Chapter 6

A LOOK AT 1975

Great Lakes levels are expected to continue abnormally high during the next several years. Thus, the present problem of affording as much protection as possible to shore property interests above and below the control facilities presently in place in the St. Marys and St. Lawrence Rivers will continue to command the frequent attention of the Commission. In the meantime, the Commission expects to prepare and forward to Governments its report and recommendations on the feasibility of further regulating lake levels.

A second major program which will command much of the Commission's attention during 1975 is the coordination and assessment of United States and Canadian programs initiated pursuant to the provisions of the Great Lakes Water Quality Agreement. An important milestone in the Agreement will be reached at year's end when all "programs and other measures directed toward the achievement of water quality objectives" are supposed to be "completed or in the process of implementation."

In addition, the Richelieu-Champlain Report will have been submitted, and the Commission will be awaiting the response of both Governments to its recommendations.

In other areas, problems which may reach the Commission in 1975 for study include the controversial Garrison Project in North Dakota, the Okanagan-Similkameen River Basin in Washington and British Columbia, and another air pollution reference for the Detroit-Windsor area to monitor progress and effectiveness of an Ontario-Michigan air pollution control agreement. In the meantime some 28 Boards and Groups will be advising the Commission on numerous existing boundary problems from coast to coast.

Many years ago, in 1913, the former U. S. Secretary of State, Senator Elihu Root, a signatory of the 1909 Boundary Waters Treaty, said, "I do not anticipate that the time will ever come when the Commission will not be needed . . . to dispose of controversies along the boundary." The numerous vital matters the Commission now faces, and will face in 1975, seem to confirm that prophesy.

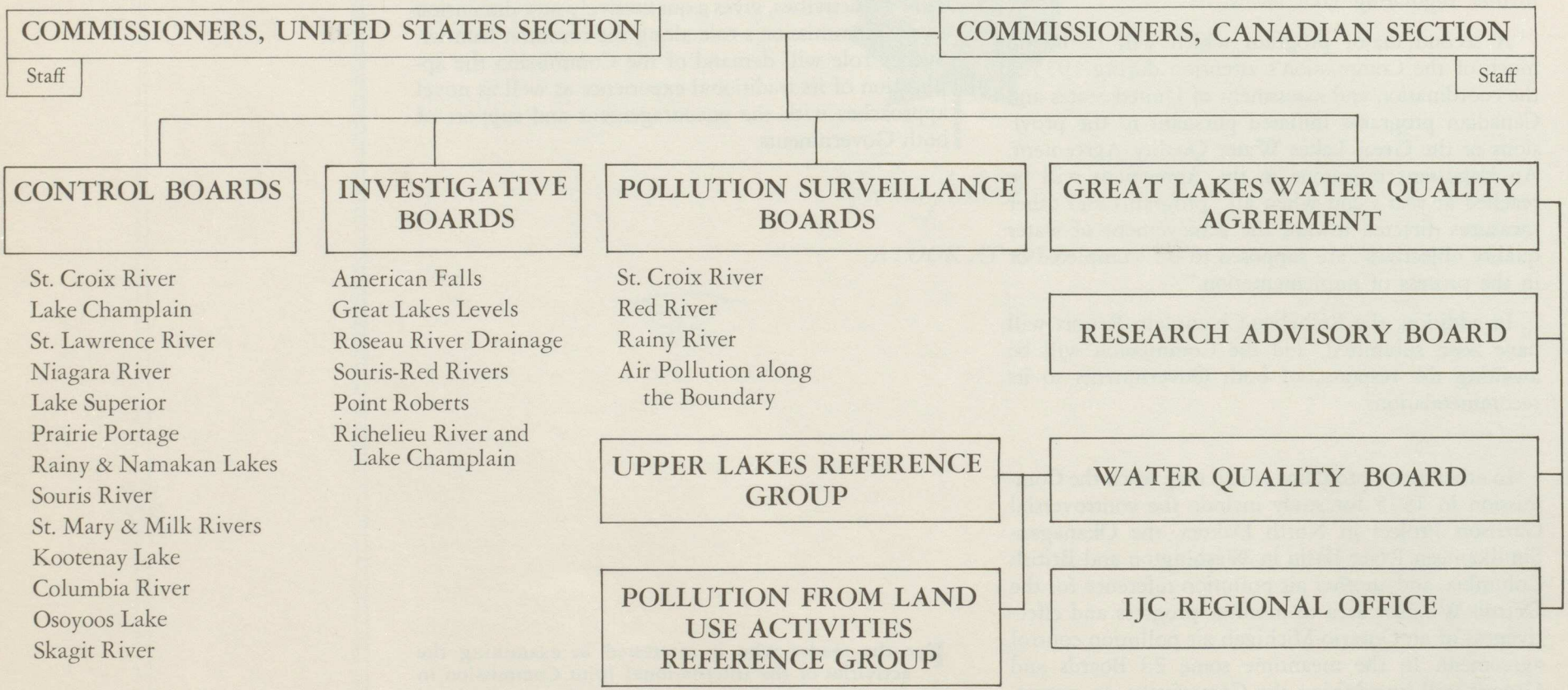
A new generation of problems that must relate water levels and use with water and air quality, and land use activities, gives a qualitatively new dimension to the Commission's role along the common frontier. Such a role will demand of the Commission the application of its traditional experience as well as novel approaches with the encouragement and support of both Governments.

For the reader who is interested in examining the activities of the International Joint Commission in greater detail, the following historical, organizational and fiscal materials are appended.

Appendix 1

IJC ORGANIZATIONAL ARRANGEMENT AND BOARDS

(1974)



Appendix 2

IJC LIST OF INTERNATIONAL PROJECTS

Under the Boundary Waters Treaty and other international arrangements, the IJC generally receives its projects

(1) by applications *to it for approval of certain activities on boundary or transboundary waters, or (2) by referral to it by the U.S. and/or Canadian Governments to make investigations* (references).

—*A or R on the chart indicates* applications *or* reference.

—*The* year *refers to the date the application or reference was submitted to the IJC.*

—*The IJC* Document number *is the official identification number for the purpose of keeping track of the projects.*

NUMERICAL INDEX AND CAPSULE OF IJC DOCKETS

Year	Docket No.	Title	Action
1912	1 A	RAINY RIVER IMPROVEMENT CO. Kettle Falls Dam	Dismissed as covered by a "special agreement."
	2 A	WATROUS ISLAND BOOM CO. Boom in Rainy River	Approved. No Board.
	3 R	LAKE OF THE WOODS LEVELS	Completed. Resulted in the 1925 Convention. Active board.
	4 R	POLLUTION OF BOUNDARY WATERS	Completed. Recommendations not implemented.
	5 R	LIVINGSTONE CHANNEL Detroit River	Completed. Recommendations implemented.
1913	6 A	MICHIGAN NORTHERN POWER CO. St. Mary's River Dam (with No. 8)	Approved. First Board of Control. Active board.
	7 A	GREATER WINNIPEG WATER DISTRICT 100 mgd from Shoal Lake for Winnipeg water supply	Approved. No board.
	8 A	ALGOMA STEEL CORPORATION St. Mary's River Dam (with No. 6)	Approved. Active board.
1914	9 R	ST. MARY AND MILK RIVERS Article VI of B.W. Treaty	Issued Order in 1921 on method of water measurement and apportionment.
	10 A	THE ST. CROIX WATER & POWER CO. Grand Falls Dam (with No. 11)	Same structure. Approved in 1915. Amended in 1931—Docket 28. Active board.
1915	11 A	SPRAGUE'S FALLS MFG. CO. Grand Falls Dam (with No. 10)	
1916	12 A	INTERNATIONAL LUMBER CO. Boom in Rainy River	Approved. No board.
	13 A	ST. CLAIR RIVER CHANNEL	Approved dredging. No board. Compensating works not constructed.
1918	14 A	NEW YORK AND ONTARIO POWER CO. Waddington Weir	Decision postponed. Now inundated by St. Lawrence Power.
	15 A	ST. LAWRENCE RIVER & POWER CO. Massena Weir	Approved. Board was established. Works removed prior to St. Lawrence Power Project.
	16 A	CANADIAN COTTONS LTD. Milltown Dam on St. Croix River	Withdrawn in 1919.
1920	17 R	ST. LAWRENCE RIVER NAVIGATION AND POWER	Completed. Treaty drafted in 1932. U.S. Senate did not ratify it. Revived in Docket 68.
1923	18 A	STATE OF MAINE FISHWAYS Fishway in St. Croix River	Approved. No board.
1925	19 A	NEW BRUNSWICK ELECTRIC POWER COMMISSION Grand Falls Dam on St. John River	Approved without passing on the issue of downstream benefits. No board.
	20 R	RAINY LAKE LEVELS	Completed. Led to Convention of 1928. Active Board. See Docket 50.
	21 A	BUFFALO AND FORT ERIE PUBLIC BRIDGE CO. Bridge over Niagara River	Approved. No board.

Year	Docket No.	Title	Action
1926	22 A	ST. JOHN RIVER & POWER CO. Grand Falls Dam on St. John River	Approved transfer of approval granted under Docket 19.
1927	23 A	CRESTON RECLAMATION CO. LTD. Dyking on Kootenay River in Canada and above the Lake	Approved. No board.
1928	24 A	ST. LAWRENCE RIVER & POWER CO. Raise Massena Weir	No action. Hearing adjourned "sine die." Now inundated by St. Lawrence Power Project.
	25 R	TRAIL SMELTER FUMES	Completed. Report not accepted by U.S. The tribunal award similar to IJC.
1929	26 R	ROSEAU RIVER DRAINAGE	Studies proceeding after a 40-year governmental delay.
	27 A	WEST KOOTENAY POWER & LIGHT CO., LTD. Kootenay Lake Storage	Withdrawn in 1934.
1931	28 A	ST. CROIX WATER POWER CO., and SPRAGUE FALLS MFG. CO. Grand Falls Dam on St. Croix River	Approved raising forebay 1.5 feet. Active board. Initial approval in Dockets 10 & 11.
1932	29 A	KOOTENAY VALLEY POWER and DEVELOPMENT CO. Dyking on Kootenay River in Canada near Creston	Approved. No board.
1932	30	Docket number assigned in error —same as above	
	31 A	MADAWASKA COMPANY Grand Falls Dam on St. John River	Denied. Related to claims pursuant to operation under Dockets 10 & 22.
1934	32 A	CANADIAN COTTONS LTD. Milltown Dam on St. Croix River	Approved. Active Board.
1935	33 A	JEAN LARIVIERE Private small dam on Little St. John Lake	Approved. No board.
	34 A	BRUNER, P.C. Dyking on Kootenay River in Canada	Approved. No board.
1936	35 A	MONTANA CONSERVATION BOARD Dam on East Fork of Popular River	Approved. Dam not built. No board.
	36 A	MYRUM GEO. B. Repair of Prairie Portage Dam	Approved. Repair work on existing timber dam not implemented.
	37 R	CHAMPLAIN WATERWAY Deep waterway from St. Lawrence to Hudson River	Completed. Recommended new study after St. Lawrence Seaway built.
1937	38 A	RICHELIEU RIVER REMEDIAL WORKS	Approved. Only control gates installed. Dykes and excavation not implemented. Active board.
1938	39 A	WEST KOOTENAY POWER & LIGHT CO. LTD. Corra Linn Dam for Kootenay Lake Storage	Approved. Active board.
1939	40 A	UNITED STATES FOREST SERVICE Prairie Portage Dam	Approval granted to reconstruct dam. Only cofferdam built. Active board.
	41 R	SOURIS RIVER Water apportionment	Governments approved interim measures recommended by IJC. Active Board of Control.
1940	42 A	CRESTON RECLAMATION CO., LTD. Dykes along Kootenay River in Canada	Approval settled outstanding differences. No board. Initial approval under Docket 23.
1941	43 A	WEST KOOTENAY POWER & LIGHT CO., LTD. Additional two feet of storage on Kootenay Lake	Approved for one year. Active board.
1940	44 A	GRAND COULEE DAM & RESERVOIR Backwater raised water level in Canada	Approved. Active board.
1941	45 A	WEST KOOTENAY POWER & LIGHT CO., LTD. Additional two feet of storage on Kootenay Lake	Informal request considered to be unnecessary application.
	46 A	CITY OF SEATTLE Ross Dam, Skagit River	Approved. Board established when Seattle & B.C. reached agreement in 1967.
1942	47 A	WEST KOOTENAY POWER & LIGHT CO., LTD. Additional two feet of storage on Kootenay Lake	Approved until end of the war. Board active.
	48 A	CRESTON RECLAMATION CO., LTD. Reclamation of flooded lands in Duck Lake	Approved. No board.
	49 A	STATE OF WASHINGTON Zosel Dam at outlet of Osoyoos Lake	Approved. Active board.

Year	Docket No.	Title	Action
	50 R	RAINY LAKE WATERSHED —Emergency conditions in Rainy and Namakan Lakes. Special jurisdiction under Convention of 1928.	Completed. Issued and subsequently modified Orders specifying rule curves. Active board. See Docket 20.
1944	51 R	COLUMBIA RIVER	Completed. Led to Columbia River Treaty.
	52 A	ONTARIO & MINNESOTA PULP & PAPER CO. Ash Rapids Dam in Lake of the Woods	Approved but not built. Lake of the Woods Board of Control to supervise.
1946	53 R	SAGE CREEK Appropriation of waters	Completed. No action by Governments.
	54 R	POLLUTION OF ST. CLAIR RIVER, LAKE ST. CLAIR AND DETROIT RIVER AND ST. MARY'S RIVER	Completed. Surveillance over water quality until Great Lakes Water Quality Agreement signed in 1972.
1948	55 R	POLLUTION OF NIAGARA RIVER	Completed. Surveillance until Great Lakes Water Quality Agreement signed in 1972.
	56	NORTHERN STATES POWER CO. Number assigned in error.	Was dealt with under Docket 41.
	57 R	WATERTON & BELLY RIVERS Further uses and apportionment of waters	Studies completed. IJC divided on national lines. Only Canadians reported.
	58 R	SOURIS & RED RIVERS Further uses and apportionment of waters	Completed. Board still reports on its umbrella activities.
	59 A	WEST KOOTENAY POWER CO., LTD. Additional two feet of storage on Kootenay Lake	Approved for four years. Board active.
	60 R	PASSAMAQUODDY TIDAL POWER	Completed. Government accepted apportionment of costs of further studies.
1949	61 R	AIR POLLUTION in Windsor-Detroit area from vessels	Completed. Surveillance activities terminated in 1966.
1950	62 A	CRESTON RECLAMATION CO., LTD. Levels of Duck Lake	Approved. Board active.
	63 R	ST. JOHN RIVER Water resources of the basin above Grand Falls	Completed.
	64 R	NIAGARA FALLS—Preservation and enhancement of their beauty	Completed and accepted by Governments. Active Board.
1951	65 A	LIBBY DAM AND RESERVOIR	Withdrawn.
	66 A	CONSOLIDATED MINING & SMELTING CO. Waneta Dam on Pend'Oreille River	Approved. No board.
1952	67 R	LAKE ONTARIO LEVELS	Completed. Studies concurrent with Application under Docket 68.
	68 A	ST. LAWRENCE POWER	Approved. Very active board.
1954	69 A	LIBBY DAM AND RESERVOIR	No devision. Problem solved by Columbia River Treaty.
	70 A	CRESTON RECLAMATION CO., LTD. Modification of 1950 Order on Duck Lake	Approved. Board active.
1955	71 R	ST. CROIX RIVER Use, conservation and regulation	Completed. Pollution aspect still under active surveillance.
1956	72 R	PASSAMAQUODDY TIDAL POWER	Completed.
1959	73 R	RAINY RIVER AND LAKE OF THE WOODS POLLUTION	Completed. Rainy River still under active surveillance.
1961	74 R	ADDITIONAL REMEDIAL WORKS ABOVE NIAGARA FALLS	Completed. Studies led to application under Docket 75.
	75 A	HEPCO AND PASNY Remedial Works above Niagara Falls	Approved. Active board.
1962	76 R	PEMBINA RIVER Cooperative development of water resources	Completed. Recommendations not acted upon.
	77 R	CHAMPLAIN WATERWAY Commercial navigation	Completed. Negative report.
1963	78 A	POWER AUTHORITY STATE OF NEW YORK Shoal Removal, Niagara Falls	Approved. Active board.
1964	79 A	LAKE ERIE-NIAGARA RIVER ICE BOOM	Approved. Active board.
	80 A	VANCEBORO DAM	Approved. Active board.
	81 R	RED RIVER POLLUTION	Completed. Active surveillance.
	82 R	GREAT LAKES LEVELS	Studies not completed.
	83 R	POLLUTION OF LOWER GREAT LAKES	Completed. Led to signing of Great Lakes Water Quality Agreement in 1972.

Year	Docket No.	Title	Action
1966	84 A	COMINCO Two feet additional storage on Kootenay Lake	Approved for one season. Board active.
	85 R	AIR POLLUTION In Detroit-St. Clair River areas	Completed. Governments yet to act. General observation along rest of boundary.
1967	86 R	AMERICAN FALLS, NIAGARA RIVER	Studies not completed.
	87 A	FOREST CITY DAM On St. Croix River	Approved. Order void because applicant did not agree to conditions.
1968	88 A	RAISIN RIVER Diversion from St. Lawrence River	Approved. Board active.
1969	89 A	METROPOLITAN CORPORATION OF GREATER WINNIPEG Diversion from Soal Lake of water for domestic purposes.	IJC action deferred at applicant's request.
	90 A	CRESTON VALLEY WILDLIFE MANAGEMENT AREA Duck Lake Levels	Approved. Active board.
1971	91 R	SKAGIT RIVER Environmental consequences of flooding.	Completed.
	92 R	POINT ROBERTS Socio problems of residents	Studies still underway.
	93 A	COMINCO Kootenay Lake Storage	Withdrawn.
1972	94 R	POLLUTION OF UPPER GREAT LAKES	Studies underway.
	95 R	POLLUTION OF GREAT LAKES FROM LAND USE ACTIVITIES	Studies underway.
	96 R	ST. JOHN RIVER WATER QUALITY A CCMS project	Review and pass upon report of special U.S.-Canada Committee when submitted.
1973	97 A	U.S. DEPARTMENT OF STATE Emergency Regulation of Lake Superior	Application in suspense. Dealt with on interim emergency basis, pending Government's confirmation.
	98 R	RICHELIEU-CHAMPLAIN REGULATION	Studies underway.

Appendix 3

IJC ACTUAL AND ANTICIPATED EXPENDITURES 1970-1977

Fiscal Year	Canadian Secretariat OTTAWA Expenditures	Man Years	Great Lakes Regional Office WINDSOR[2] Expenditures	Man Years
1970-71	499,000	11		
1971-72	536,000	11		
1972-73	451,000	12	***	4
1973-74	504,000	14	206,000	8
1974-75*[1]	1,180,000	14	640,000	15
1975-76**	1,450,000	24	850,000	20
1976-77**	1,500,000	26	1,800,000	26

Fiscal Year	U.S. Secretariat WASHINGTON Expenditures	Man Years	Great Lakes Regional Office WINDSOR[3] Expenditures	Man Years
1971	128,500	4		
1972	166,000	5		
1973	256,500	8	22,000	.4
1974	314,000	9	152,000	2
1975*	349,000	9	404,500	4.7
1976**	372,500	9	580,000	10

**Estimated*
***Anticipated*
****Included in Ottawa Secretariat budget*

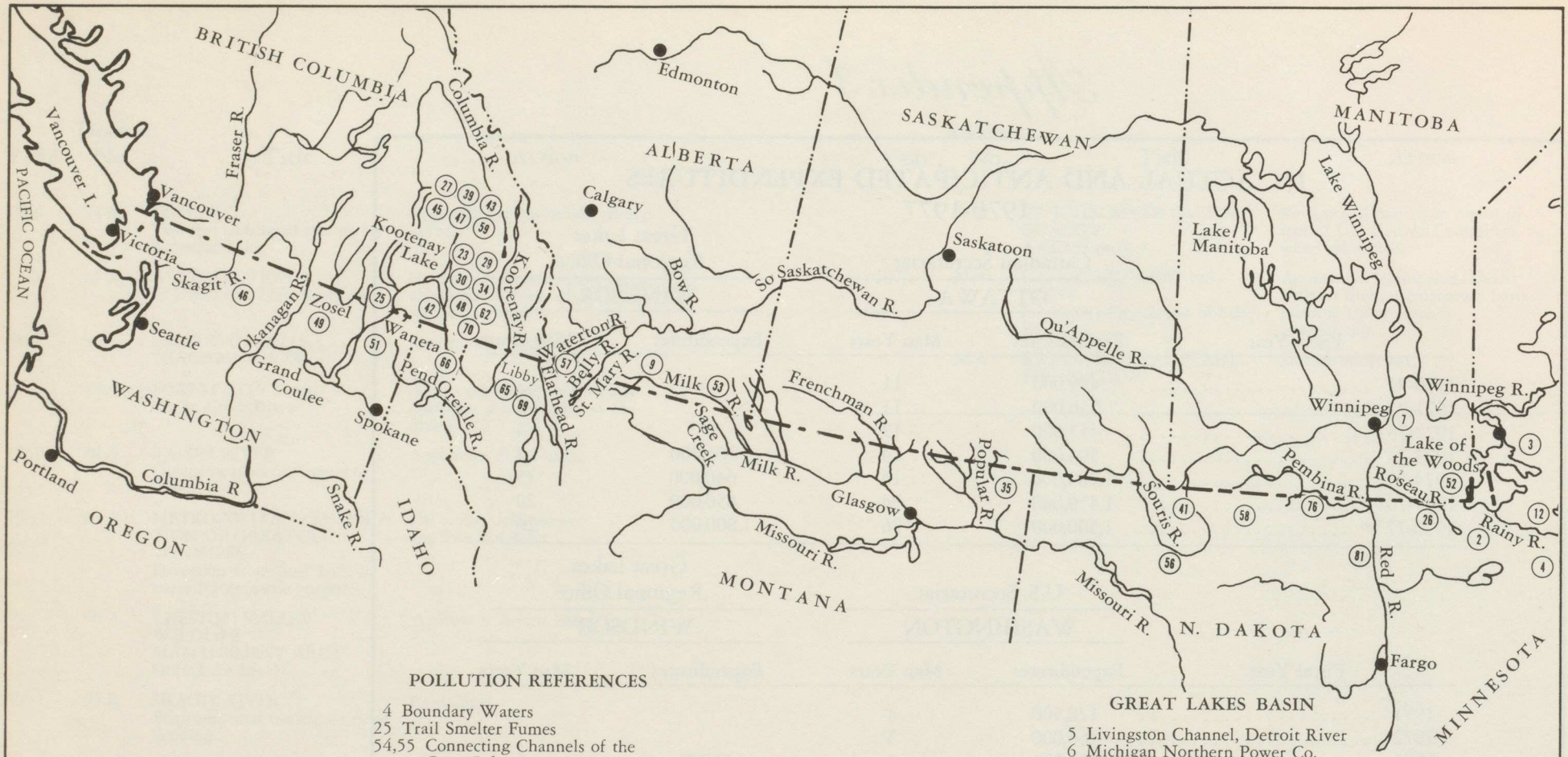
[1] This includes payments to the Government of Ontario for one-half the costs of the work carried out by Ontario in direct support of the Commission's Land Use Activities Reference and the Upper Lakes Pollution Reference.

[2] The costs of the Regional Office at Windsor, staffed by Canadian and United States Public Servants, are shared equally between Canada and the United States except for capital items (furniture and furnishings) which are paid for and retained by Canada. Each Country pays and recruits its own officials. The figures above represent salaries of Canadian professional and support staff and the total operating costs which are initially paid from Canadian appropriations and then are shared by the United States equally.

[3] Differences indicated by Regional Office totals are caused by differing fiscal years. Canada—April 1 to March 31; U.S.—July 1 through June 30.

Canadian expenditures expressed in Canadian dollars; U.S. expenditures in U.S. dollars.

It is not possible to estimate approximate values of the services of other Departments which have been provided to the IJC during the same period, which have run into millions of dollars. Much of the work performed by Departments for the IJC consists of work required as well under ongoing Departmental programs.



KOOTENAY RIVER

27, 39, 43] West Kootenay Power and
45,47,59] Light Co. Ltd. Applications
65,69 Libby Dam Applications
23,42,48] Creston Reclamation Co. Ltd.
62,70] Applications
29,30 Kootenay Valley Power and Development Co. Applications
34 P. C. Bruner Application

COLUMBIA AND SKAGIT RIVERS

44 Grand Coulee Dam and Reservoir Application
46 City of Seattle Application
49 State of Washington Application
51 Columbia River
66 Consolidated Mining and Smelting Co. Application
92 Point Roberts

POLLUTION REFERENCES

4 Boundary Waters
25 Trail Smelter Fumes
54,55 Connecting Channels of the Great Lakes
61 Air Pollution of Windsor-Detroit Area
71 St. Croix River
73 Rainy River and Lake of the Woods
81 Red River
83 International Section, St. Lawrence River and Lakes Ontario, Erie
94 Upper Great Lakes
95 Land Use Activities in Great Lakes System
96 St. John River

MID-WESTERN

9 St. Mary and Milk Rivers
35 Montana Conservation Board Application
41 Souris River
53 Sage Creek
56 Northern States Power Co. Application
57 Waterton and Belly Rivers
58 Souris and Red Rivers
76 Pembina River

RAINY RIVER-LAKE OF THE WOODS

1 Rainy River Improvement Co. Application
2 Watrous Island Boom Co. Application
3 Lake of the Woods Levels
7 Greater Winnipeg Water District Application
12 International Lumber Co. Application
20 Rainy Lake Levels
26 Roseau River Drainage
36 G-B-Myrum Application
40 United States Forest Service Application
50 Rainy Lake Watershed-Emergency Conditions
52 Ontario and Minnesota Pulp and Paper Co. Application

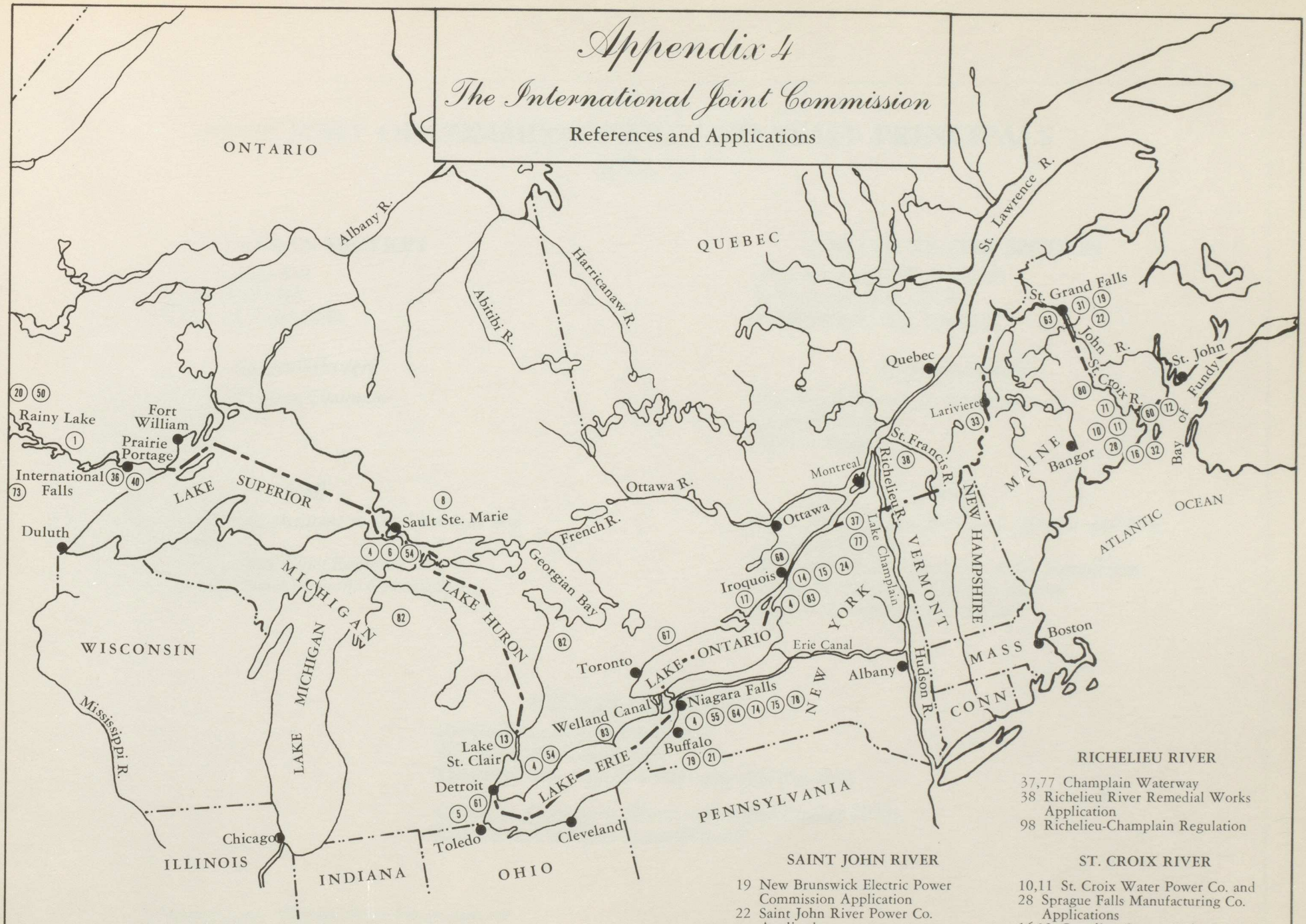
GREAT LAKES BASIN

5 Livingston Channel, Detroit River
6 Michigan Northern Power Co. Application
8 Algoma Steel Corporation Ltd. Application
13 St. Clair River Channel Application
14 New York and Ontario Power Co. Application
15,24 St. Lawrence River Power Co. Applications
17 St. Lawrence River Navigation and Power
21 Buffalo and Fort Erie Public Bridge Co. Application
64 Preservation and Enhancement of Niagara Falls
67 Lake Ontario Levels
68 St. Lawrence Power Application
74 Niagara Additional Remedial Works
82 Water Levels of the Great Lakes HEPCO and PASNY Applications
75 Niagara Remedial Works
78 Shoal Removal, Niagara River
79 Niagara Ice Boom
97 U.S. Government Application, Emergency, Regulation of Lake Superior

Appendix 4

The International Joint Commission

References and Applications



RICHELIEU RIVER

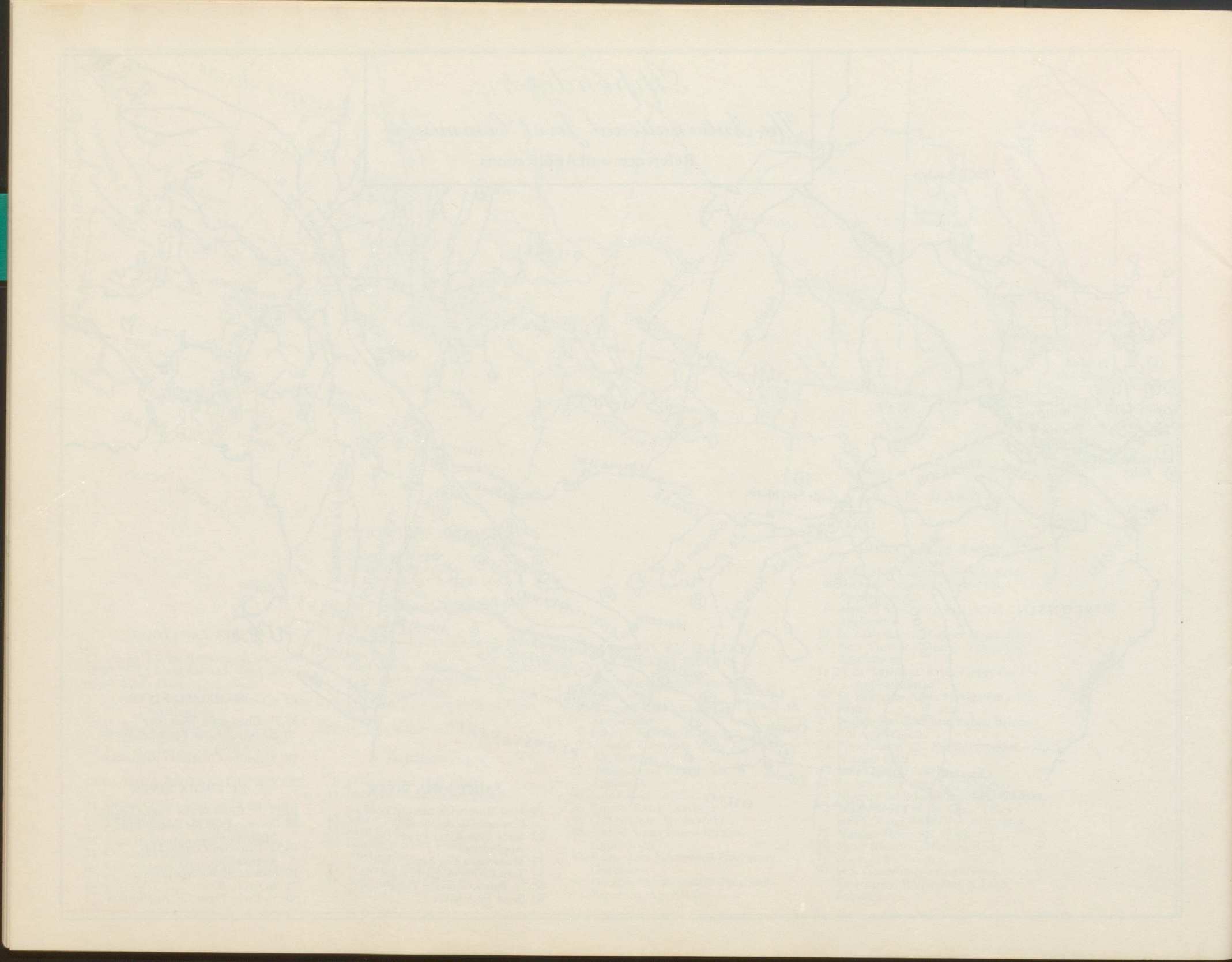
37,77 Champlain Waterway
38 Richelieu River Remedial Works Application
98 Richelieu-Champlain Regulation

SAINT JOHN RIVER

19 New Brunswick Electric Power Commission Application
22 Saint John River Power Co. Application
31 Madawaska Co. Application
33 Jean Lariviere Application
60,72 Passamaquoddy Tidal Power
63 Saint John River

ST. CROIX RIVER

10,11 St. Croix Water Power Co. and
28 Sprague Falls Manufacturing Co. Applications
16,32 Canadian Cottons Ltd. Applications
18 State of Maine Application
71 St. Croix River
80 St. Croix Paper Co. Application



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1974

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Charles G. Gunnerson, *Director* (Resigned October 1974)
*Kenneth A. Oakley, *Associate Director*

**As of the publication date, Chairman Herter had resigned and had been replaced by Henry P. Smith, III; Mr. Oakley had been named Director.*

64 Years of Creative Accord